

### REMARKS/ARGUMENTS

Claims 18-41 are pending in the application. Claim 30 is allowed. Claims 18-29, and 31-41 are rejected under 35 U.S.C. § 112, first paragraph, as based on a disclosure which is not enabling. Further, claim 18 is rejected under 35 U.S.C. § 102(b) as being anticipated by U.K. patent application GB 2233334A ("Rumsby"). Applicant respectfully traverses these rejections.

#### **Addressing rejections based on 35 U.S.C. 112, first paragraph**

Independent claims 18, 21, 31 and 33 have been amended. Although applicant does not necessarily agree with examiner, these claims have been amended solely to advance prosecution and to recite additional features not taught by the cited reference. Further, regarding independent claims 31 and 33, Applicant respectfully argues that the method of fabricating a field emission cathode is fully enabling. Applicant respectfully reminds the Examiner that independent claims 31 and 33 are directed to the *method* of fabricating a field emission cathode. Those claims directed to methods of fabricating are separate and distinct from those directed to the apparatus itself. However, the Examiner has failed to specifically identify what information is missing and why the missing information is needed to provide enablement of the method claims, as required by MPEP § 2164.04 and 2164.06(a). Applicant contends that the one skilled in the art could utilize the method to fabricate a field emission cathode from the disclosures in the patent coupled with information known in the art without undue experimentation, as required by MPEP § 2164.01. In light of these amendments and arguments, Applicant's respectfully request that the rejection based on 35 U.S.C. § 112, first paragraph, be withdrawn.

#### **Addressing rejection based on 35 U.S.C. 102(b)**

Generally, Rumsby discloses surface treatment of polymer materials. More particularly, Rumsby discloses several ways to modify the structure of a polymer film using UV radiation. The Examiner asserts that Rumsby discloses "a field emission cathode comprising a polymer material forming a field emission surface (Office action at ¶ 3, citing Rumsby at p.7, ¶ 2). Applicant respectfully traverses the Examiner's assertion.

Applicant respectfully reminds that Rumsby discloses a cathode formed by a metal layer on a roughened polymer surface (*see* Rumsby at p.7, ¶ 2). Thus, in contradistinction to the invention of Applicant's claim 18, Rumsby's *polymer* does not form the *exposed surface* from which field emission takes place. Rather, field emission takes place from the metal surface of a polymer substrate.

By contrast, Applicant's amended claim 18 has been clarified to recite a field emission cathode comprising a *polymer* material forming an *exposed* field emission surface, from which field emission takes place. Applicant respectfully submits that Rumsby does not teach or suggest a polymer material forming an *exposed* field emission surface as claimed. The prior art simply does not teach or suggest field emission from a surface formed of polymer. Accordingly, Applicant respectfully submits that Applicant's claim 18 patentably distinguishes over Rumsby. Thus, Applicant requests that the rejection based on 35 U.S.C. § 102(b) be withdrawn.

Claims 19-20, & 29 and 22-28, 35-41 are all variously dependent on independent claims 18 and 21 and are therefore allowable for the reasons given above for the independent claims. Further, claims 32 and 34, are dependent on independent claims 31 and 33, and are therefore also allowable for the reasons given above for those independent claims.

For all the foregoing reasons, Applicant respectfully submit that the pending claims are enabling and patentably define over the cited art. Applicant respectfully requests reconsideration of the application, and a Notice of Allowance for claims 18-41. In the event, however, that the Examiner believes that the application is not allowable for any reason, the Examiner is encouraged to contact the undersigned attorney to discuss resolution of any remaining issues.

**DOCKET NO.:** THOM-0012  
**Application No.:** 09/646,032  
**Office Action Dated:** March 11, 2004

**PATENT**

Respectfully submitted,



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Date: July 8, 2004

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